

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing Of Claims

1. (Currently Amended) A communication method, comprising:
- transmitting a first ~~type of~~ information on a first single frequency carrier in accordance with a first ~~multiframe type, said first multiframe type~~ structure having x frames, x being an integer; and
- transmitting a second ~~type of~~ information on said first same single frequency carrier in accordance with a second ~~multiframe type, said second multiframe type~~ structure having y frames, ~~wherein y is being an integer that is different than x.~~
- arranging said first and second multiframe structures in time groups, each of said time groups having a plurality of timeslots, and
- allocating a plurality of timeslots in each of said time groups to said first information and to said second information so that said first information and said second information are transmitted in time slots that are different from each other within each time group, and so that said first and second information are transmitted in different timeslots in each of said time groups.
2. (Currently Amended) The ~~communication~~ method of claim 1, wherein said first ~~type of~~ information includes broadcast control information.
3. (Currently Amended) The ~~communication~~ method of claim 1, wherein said first ~~type of~~ information includes common control information.
4. (Currently Amended) The ~~communication~~ method of claim 1, wherein said first ~~type of~~ information includes broadcast control information and said second ~~type of~~ information includes common control information.

5. (Currently Amended) A communication method, comprising:
transmitting a first information on a single frequency carrier in accordance with a
first multiframe structure having x frames, x being an integer;
transmitting a second information on said same single frequency carrier in
accordance with a second multiframe structure having y frames, y being an integer
different than x; and

~~The communication method of claim 1, further comprising:~~

transmitting a third ~~type of~~ information on said first same single frequency carrier
in accordance with a third multiframe ~~type~~ structure, ~~said third multiframe type~~ having z
frames, ~~wherein z is being~~ an integer ~~that is~~ different than x and y.

6. (Currently Amended) ~~The communication method of claim 1, wherein: said first~~
~~multiframe type~~ structure has 51 frames.

7. (Currently Amended) ~~The communication method of claim 1, wherein said first~~
~~multiframe type~~ structure has 52 frames.

8. (Currently Amended) ~~The communication method of claim 6, wherein~~
~~said (second multiframe) type~~ structure has 52 frames,
~~said first type of information including~~ included broadcast control information, and
~~said second type of information including~~ includes common control information.

9. (Currently Amended) ~~The communication method of claim 1, wherein a base station~~
~~of a wireless communication network performs said step of transmitting a first type of~~
~~information and said step of transmitting a second type of information.~~

10. (Currently Amended) ~~The communication method of claim 1, A communication~~
method, comprising:

transmitting a first information on a single frequency carrier in accordance with a
first multiframe structure having x frames, x being an integer;

transmitting a second information on said same single frequency carrier in accordance with a second multiframe structure having y frames, y being an integer different than x, wherein a (current frame) number for said second multiframe type structure is derived from parameters that represent a (current frame) number for said first multiframe type structure.

11. (Currently Amended) A communication system₁ comprising:

means for transmitting a first ~~type of~~ information on a first single frequency carrier in accordance with a first multiframe ~~type~~, ~~said first multiframe type~~ structure having x frames, x being an integer; and

means for transmitting a second ~~type of~~ information on said ~~first same single~~ frequency carrier in accordance with a second multiframe ~~type~~ structure, ~~said second multiframe type~~ having y frames, ~~wherein y is being~~ an integer ~~that is~~ different than x;

arranging means for arranging said first and second multiframe structures in time groups, each of said time groups having a plurality of timeslots; and

allocating means for allocating a plurality of said timeslots to said first information and for allocating a plurality of said timeslots to said second information, so that said first information and said second information are transmitted in time slots that are different from each other within each time group, and so that said first and second information are transmitted in different timeslots in each of said time groups.

12. (Currently Amended) The ~~communication~~ system of claim 11, wherein said first ~~type of~~ information includes broadcast control information.

13. (Currently Amended) The ~~communication~~ system of claim 11, wherein said first ~~type of~~ information includes common control information.

14. (Currently Amended) The ~~communication~~ system of claim 11, wherein said first ~~type of~~ information includes broadcast control information₁ and said second ~~type of~~ information includes common control information.

15. (Currently Amended) ~~The communication system of claim 11, further comprising: A communication system, comprising:~~

means for transmitting a first information on a single frequency carrier in accordance with a first multiframe structure having x frames, x being an integer;

means for transmitting a second information on said same single frequency carrier in accordance with a second multiframe structure having y frames, y being an integer different than x; and

means for transmitting a third type of information on said first same single frequency carrier in accordance with a third multiframe type, said third multiframe type structure having z frames, wherein z is being an integer that is different than x and y.

16. (Currently Amended) ~~The communication system of claim 11, wherein: said first multiframe type structure~~ has 51 frames.

17. (Currently Amended) ~~The communication system of claim 11, wherein said first multiframe type structure~~ has 52 frames.

18. (Currently Amended) ~~The communication system of claim 16, wherein~~
~~said (second multiframe) type structure~~ has 52 frames,
~~said first type of information including~~ includes broadcast control information, and
~~said second type of information including~~ includes common control information.

19. (Currently Amended) ~~The communication system of claim 16, wherein~~
~~said means for transmitting a first type of information and said means for transmitting a second type of information~~ are components of a base station of a wireless communication network.

20. (New) The method of claim 1, wherein said allocating step prevents said step of transmitting said first information from interfering with said step of transmitting said second information within a same time group, and prevents transmission of any one of said first information and said second information in one time group from interfering with

transmission of any one of said first information and said second information in each of the other time groups.

21. (New) The method of claim 1, wherein said first and second multiframe structures are time-grouped according to an edge-compact type network.

22. (New) The system of claim 11, wherein said allocating step prevents said step of transmitting said first information from interfering with said step of transmitting said second information within a same time group, and prevents transmission of any one of said first information and said second information in one time group from interfering with transmission of any one of said first information and said second information in each of the other time groups.

23. (New) The system of claim 11, wherein said first and second multiframe structures are time-grouped according to an edge-compact type network.

24. (New) A method for providing air interface channels in a communications network, comprising:

time multiplexing a plurality of different multiframe structures onto a single frequency carrier to accommodate different channel types defined by said plurality of different multiframe structures on the same single frequency carrier.

25. (New) The method of claim 24, wherein said time multiplexing includes time multiplexing a first multiframe structure of x consecutive frames, a second multiframe structure of y consecutive frames, and a third multiframe structure of z consecutive frames, x , y and z being different positive integers, with values of x , y and z selected so that a given frame number for the first, second and third multiframe structures (simultaneously re-occurs) every $x*y*z$ frames.

26. (New) The method of claim 25, wherein said time multiplexing further includes:
arranging said x , y and z frames of said first, second and third multiframe structures in time groups, each of said time groups having a plurality of timeslots, and

allocating a plurality of timeslots in each of said time groups to said x, y and z consecutive frames so that said x, y and z consecutive frames are transmitted in timeslots that are different from each other within each time group, and so that said x, y and z consecutive frames are transmitted in different timeslots in each of said time groups.

27. (New) The method of claim 24, wherein said different channel types include common control channels, broadcast control channels and traffic channels.

28. (New) The method of claim 25, wherein said first multiframe structure of x consecutive frames is associated with (one of) common control channels, broadcast control channels and traffic channels.

29. (New) The method of claim 25, wherein said second multiframe structure of y consecutive frames is associated with (one of) common control channels, broadcast control channels and traffic channels.

30. (New) The method of claim 25, wherein said third multiframe structure of z consecutive frames is associated with (one of) common control channels, broadcast control channels and traffic channels.
